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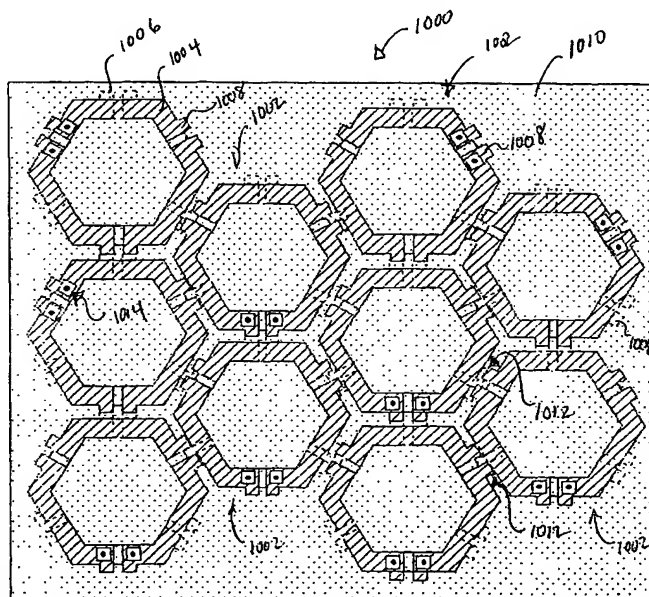
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(54) Title: SUPERCONDUCTING ARRAY OF SURFACE MRI PROBES



(57) Abstract: An array of resonators for use in MRI and NMR is disclosed where the resonators are solid state constructs including a pair of resonating elements formed on both sides of a dielectric substrate and cooperate to form a resonator and where each resonator includes at least one discontinuity and the discontinuities on each resonating element are equally spaced and between the resonating elements are equally spaced. A probe for MRI is also disclosed which includes a source of cooling to cool the arrays therein.